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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,165	10/28/2003	James W. Blease	85905D-W	7164

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EXAMINER

KLEMANSKI, HELENE G

ART UNIT PAPER NUMBER

1755

DATE MAILED: 06/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/695,165

Applicant(s)

BLEASE ET AL.

Examiner

Helene Klemanski

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 28 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>2/4/04</u> . | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities: the Cross Reference to Related Applications on page 1 of the specification needs to be updated; on page 6, line 15, a comma should be inserted between the terms “-CH₂CH₂NCH₃(CH₂COONa)” and “an” and on page 8, line 9, the term “hetercyclic” should be replaced with the term “heterocyclic”. Appropriate correction is required.

Claim Objections

Claims 2 and 4 are objected to because of the following informalities: in claim 2, the second line after formula (I), the term “-CH₂CH₂-O-H” should be replaced with the term “CH₂CH₂OH” and in claim 4, line 9 after formula (IV); the term “hetercyclic” should be replaced with the term “heterocyclic”.

The following phrases are also being objected to because of the following reasons:

(1) in claim 2, lines 2 and 3 “alkylamino group such as -CH₂CH₂N(CH₂CH₂OH)₂, -CH₂CH₂NCH₃(CH₂CH₂OH), -CH₂CH₂NCH₃(CH₂CH₂SO₃Na), -CH₂CH₂NCH₃(CH₂COONa)”;

(2) in claim 4, lines 9-11 after formula (IV), the phrase “a metal cation preferentially an alkali metal cation, an ammonium cation, or an ammonium cation substitutes with alkyl, alkoxyalkyl or hydroxyalkyl radicals each having 1 to 12 C atoms” and

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(3) also in claim 4, line 1 after formula (V), the phrase "metal atom preferably AL, Co, Cr, Cu, Fe or Ni".

Applicants should note that the terms "preferably", "preferentially" and "such as" and the phrases that follow them do not further limit the claims. For example, in claim 2, it is the examiner's position that the substituent X is an alkylamino group and the remaining groups after the term "such as" do not extend the scope of that claim. The examiner suggests the deletion of the above phrases and adding each limitation as a new dependent claim. Appropriate correction is required.

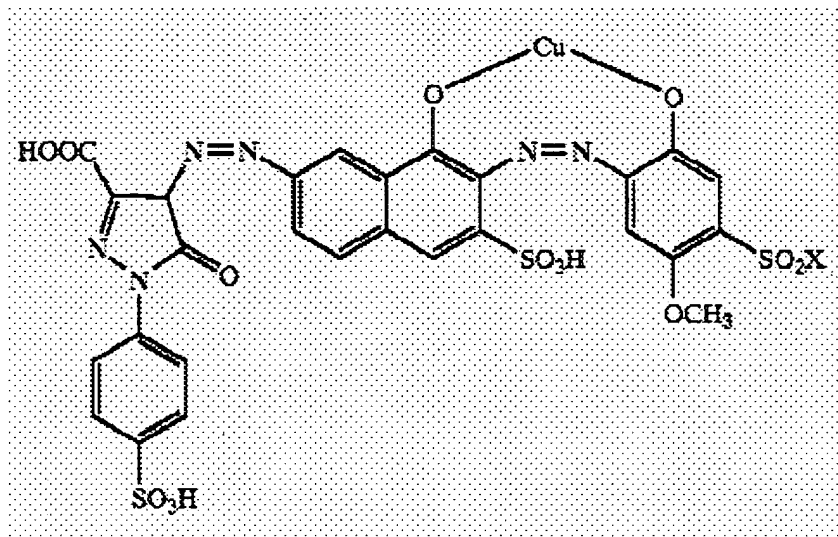
Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

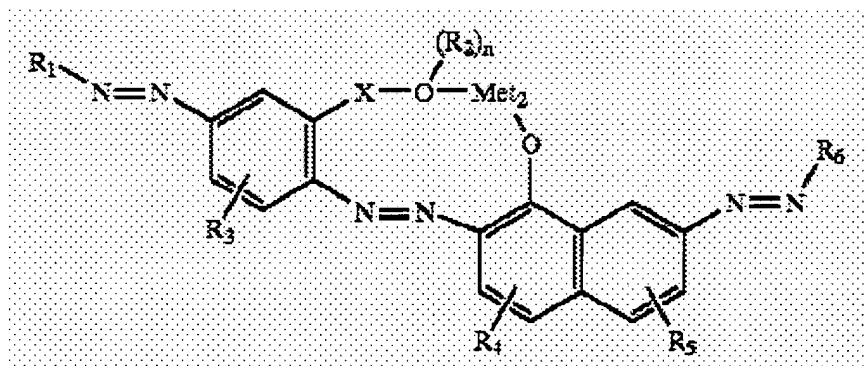
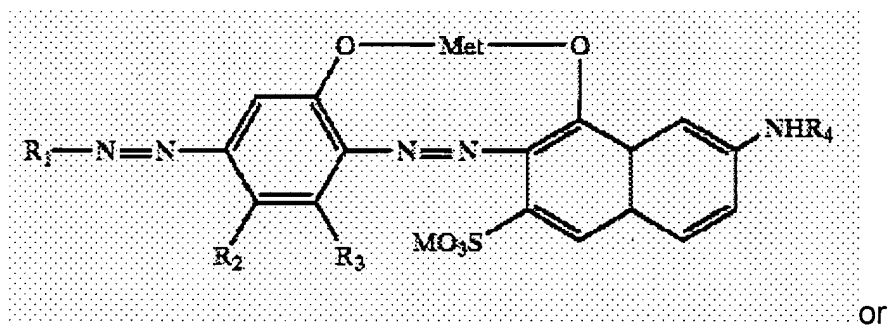
The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 1-23 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for an ink jet ink comprising at least one first metal complex black dye of the formula

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wherein X is defined in the specification and having the specific CIELAB a^* value and visual density, at least one second metal complex dye of the formula



wherein the substituents are defined in the specification and having the specific CIELAB a^* value and visual density and at least one yellow azo-aniline yellow dye or metal

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complex yellow dye or mixtures thereof, does not reasonably provide enablement for an ink jet ink comprising at least one first metal complex black dye that when printed alone has a the specific CIELAB a* value and visual density as claimed; at least one second metal complex dye that when printed alone has a the specific CIELAB a* value and visual density as claimed and at least one yellow azo-aniline yellow dye or metal complex yellow dye or mixtures thereof. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make the invention commensurate in scope with these claims.

The claims recite at least one first metal complex black dye that when printed alone has a specific CIELAB a* value and visual density as claimed and at least one second metal complex dye that when printed alone has a specific CIELAB a* value and visual density as claimed. This encompasses any metal complex black dye that has those properties. However, the specification only teaches the use of one first metal complex black dye and two second metal complex black dyes. Such a limited disclosure does not support the breadth of the instant claims. The examiner suggests the incorporation of claims 2 and 4 into claim 1, 22 and 23 to overcome this rejection.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 4 and 18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 is considered vague and indefinite since there is no definition for the substituent R₃ for formula (IV). See lines 1-12 after formula (IV) and page 8 of the specification. Please clarify.

In claim 18, the terms "Kodak Lightfast Magenta 1 (CAS #251959-65-6)", "Ilford Magenta 377 (CAS #182061-89-8)", "Nippon Kayaku JPD EK-1 (CAS #224628-70-0)" and "CAS #212080-60-9" are considered indefinite since the relationship between a trademark and the product it identifies is sometimes indefinite, uncertain or arbitrary. The formula or characteristics of the product may change from time to time and yet it may be sold under the same trademark. In the claims, every element or ingredient of the ink should be set forth in positive, exact, intelligible language, so that there will be no uncertainty as to what is meant. Arbitrary trademarks, which are liable to mean different things at the pleasure of manufactures, do not constitute such language. See *Ex parte Kattwinkel*, 12 U.S.P.Q. 11 and MPEP 608.01(v).

Claim Rejections - 35 USC § 103

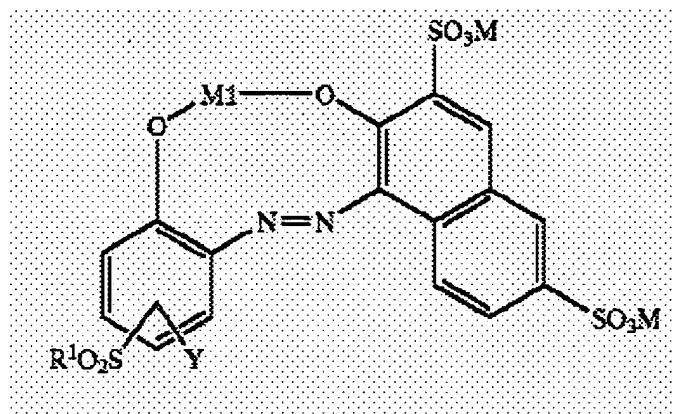
6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

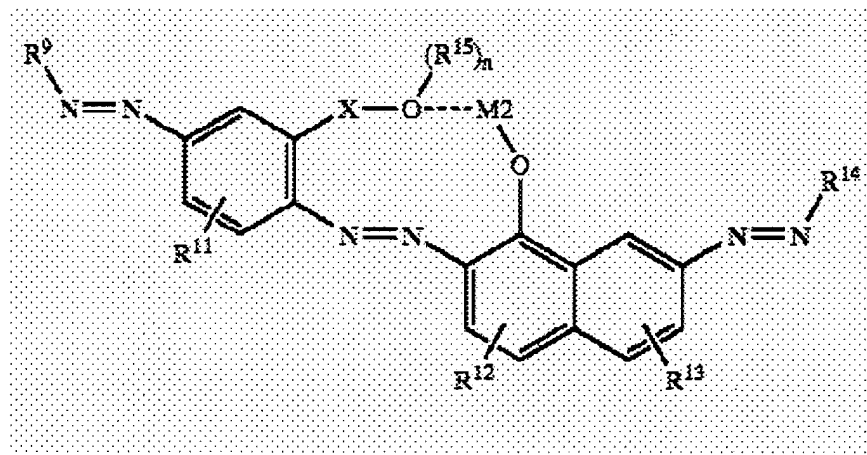
7. Claims 1-19, 22 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 02/094943 (US 2004/0128775 is English equivalent).

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WO 02/094943 teaches dye mixtures consisting essentially of one or more dyes of the formula



wherein Y is H, C₁-C₆ alkyl, C₁-C₆ alkoxy or halo; R¹ is OM, CH=CH₂, CH₂CH₂OR², CH₂CH₂NR³R⁴, CH₂CH₂SR⁵ or CH₂CH₂CR⁶R⁷R⁸; R² is H, SO₃M, C₁-C₆ alkyl, etc.; R³ to R⁸ are H, C₁-C₆ alkyl, etc.; M¹ is Cu, Co, Ni, Fe, Cr or Al and M is H or a monovalent metal cation and one or more dyes of the formula



wherein R⁹ is a C₆-C₁₄ aryl substituted one or more times by OM, O(C₁-C₆) alkyl, COOM, SO₃M or NH₂; R¹¹, R¹² and R¹³ are identical or different and are H, O(C₁-C₆) alkyl, (C₁-C₆) alkyl, COOM or SO₃M; R¹⁴ is phenyl, pyridyl or pyrazole radical substituted one or more times by OM, O(C₁-C₆) alkyl, COOM, SO₃M or NH₂, NH(C₆-C₁₀)

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aryl, $\text{NH}(\text{C}_1\text{-C}_6)$ acyl or phenylsulfo; M_2 is Al, Cr, Fe, Co, Ni or Cu; R^{15} is $(\text{C}_1\text{-C}_6)$ alkyl, n is 0 or 1; X is a chemical bond, $-\text{CO}-$ or $-\text{SO}_2-$ and M is H or a monovalent metal cation. The ratio of the first dye to the second dye present in the dye mixture is between 100:1 to 1:100. The dye mixtures may further contain 0.001-5% by weight of a shading dye such as Direct Yellow 86 or Direct Yellow 132. WO 02/094943 further teaches an ink jet ink composition comprising 0.1-50% by weight of the above dye mixture, 0-99% by weight water, 0.5-99.5% by weight of organic solvent and/or humectants such as glycerol, diethylene glycol, triethylene glycol, urea etc. and optionally a nonionic surfactant. The above ink jet ink composition may also be used as the black ink in an ink set. The ink set additionally comprises a magenta ink containing a magenta dye such as Reactive Red 23 (i.e. anthrapyridone, metal complex or azo-naphthol magenta dye), a cyan ink containing a cyan dye such as Direct Blue 199 (i.e. sulfonated copper phthalocyanine dye) and a yellow ink containing a yellow dye such as Direct Yellow 86 or Direct Yellow 132 (i.e. azo-aniline or metal complex yellow dye). The above ink and ink set may be used in typical ink jet printing processes. See paras. 0012-0045, formulas (5e), (5f), (5g), (5i) and (5k), para. 0048, para. 0050, para. 0052, paras. 0057-0060, para. 0065, examples 1-10 and claims 1, 4 and 8-12 of US 2004/0128775. WO 02/094943 fails to specifically exemplify the addition of a yellow shading colorant such as Direct Yellow 86 or Direct Yellow 132 or an ink set comprising a cyan ink comprising a sulfonated copper phthalocyanine dye, a magenta ink comprising an anthrapyridone, metal complex or azo-naphthol magenta dye, a yellow ink comprising an azo-aniline or

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metal complex yellow dye or a black ink comprising the above trisazo dye as claimed by applicants.

Therefore, it would have been obvious to one having ordinary skill in the art to have added the yellow shading dye as claimed by applicants as WO 02/094943 also discloses the addition of these shading dyes but fails to show an example incorporating them.

Furthermore, it would have been obvious to one having ordinary skill in the art to use the specific ink jet ink set as claimed by applicants as WO 02/094943 also discloses the use of this ink jet ink set but fails to show an example incorporating them.

The only limitations in the claims not found by the examiner is the CIELAB a* value and the visual density of each of the metal complex black dyes. However, these limitations are considered obvious because there does not appear to be any reason why the cited reference would not contain a metal complex black dye with applicants claimed CIELAB a* value and the visual density since the dyes in WO 02/094943 are both metal complex black dyes as claimed by applicants.

Conclusion

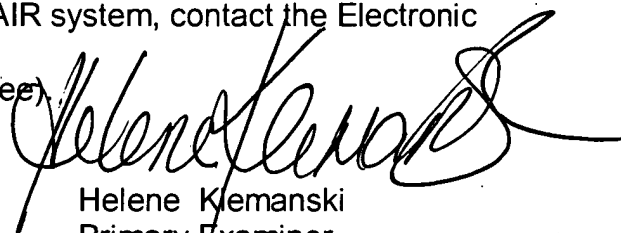
The remaining references listed on forms 892 and 1449 have been reviewed by the examiner and are considered to be cumulative to or less material than the prior art references relied upon in the above rejections.

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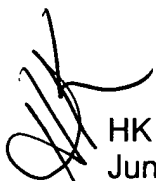
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helene Klemanski whose telephone number is (571) 272-1370. The examiner can normally be reached on Monday-Friday 5:30-2:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jerry Lorengo can be reached on (571) 272-1233. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Helene Klemanski
Primary Examiner
Art Unit 1755



HK
June 13, 2005